DECISION

I. INTRODUCTION

On July 1, 1994, Public Act 94-83, "An Act Implementing The Recommendations Of The Telecommunications Task Force" (the Public Act or Act), became Connecticut law. The Act is a broad strategic response to the changes facing the telecommunications industry in Connecticut. The technological underpinnings, the framework for a more participative, and ultimately more competitive, telecommunications market, and the role of regulation envisioned by the legislature are essential to the future realization and public benefit of an "Information Superhighway" in Connecticut.

At the core of the Public Act are the principles and goals articulated therein. Section 2 (a) of the Act provides in pertinent part:

> Due to the following: affordable, high quality telecommunications services that meet the needs of individuals and businesses in the state are necessary and vital to the welfare and development of our society; the efficient provision of modern telecommunications services by multiple providers will promote economic development in the state; expanded employment opportunities for residents of the state in the provision of telecommunications services benefit the society and economy of the state; and advanced telecommunications services enhance the delivery of services by public and not-for-profit institutions, it is, therefore, the goal of the state to (1) ensure the universal availability and accessibility of high quality, affordable telecommunications services to all residents and businesses in the state, (2) promote the development of effective competition as a means of providing customers with the widest possible choice of services, (3) utilize forms of regulation commensurate with the level of competition in the relevant telecommunications service market, (4) facilitate the efficient development and deployment of an advanced telecommunications infrastructure, including open networks with maximum interoperability and interconnectivity, (5) encourage shared use of existing facilities and cooperative development of new facilities where legally possible, and technically and economically feasible, and (6) ensure that providers of telecommunications services in the state provide high quality customer service and high quality technical service.

Conn. Gen. Stat. § 16-247a (a).

The central premise of the legislation is that broader participation in the Connecticut telecommunications market will be more beneficial to the public than will broader regulation. It is significant, however, that the Act does not chart a detailed plan for realization of its goals and compliance with its principles. Rather, the Act entrusts the Department of Public Utility Control (Department) with the responsibility of

implementing both the letter and spirit of its important provisions; the Act thus endows the Department with broad powers and procedural latitude as it seeks to achieve the legislative goals through the facilitation of the development of competition for all telecommunications services.

In light of the Public Act, the Department's efforts must facilitate market conditions and create regulatory conditions that will maximize the benefits of future competition for the user public of Connecticut. As articulated by the Department's Chairman, Reginald J. Smith, during the June 23, 1994 technical meeting in Docket No. 94-05-26, General Implementation of Public Act 94-83, the passage of Public Act 94-83 places the Department and the telecommunications industry at an unprecedented point in Connecticut regulatory history with an opportunity to define a markedly different future for Connecticut telecommunications. The Department, therefore, established a framework for the implementation of Public Act 94-83 that would allow it the opportunity to fully and publicly explore all the alternatives available to it under the terms and conditions of the legislation and establish therefrom appropriate regulatory mechanisms to effect the legislative intent that telecommunications services be regulated "in a manner designed to foster competition and protect the public interest." The implementation framework involves four phases: the initial conceptual infrastructure phase, the competition phase, the alternative regulation phase and the holding company affiliate phase.

The conceptual infrastructure phase consisted of Docket No. 94-07-01, The Vision For Connecticut's Telecommunications Infrastructure, in which a Decision was issued on November 1, 1994. The Department initiated that docket in recognition of the fact that effective and efficient implementation of Public Act 94-83 required at the outset an investigation of the state's telecommunications infrastructure which is the foundation for the provision of all telecommunications services. In its Decision, therefore, the Department identified the attributes that will be required of any future infrastructure to achieve the Act's goals, articulated intended Department initiatives to facilitate the development of a future infrastructure that exhibits those identified attributes and identified issues to be more fully explored in subsequent implementation dockets.

To begin the competition phase, in July of 1994, the Department initiated eight highly focused, limited discovery dockets to address the issues raised by the legislature's commitment to broader market participation in Connecticut. The Department has issued decisions in six of those proceedings: Docket No. 94-07-02, Development of the Assumptions, Tests, Analysis, and Review to Govern Telecommunications Service Reclassifications in Light of the 8 Criteria Set Forth in Section 6 of Public Act 94-83; Docket No. 94-07-03, DPUC Review of Procedures Regarding the Certification of Telecommunications Companies and of Procedures Regarding Requests by Certified Telecommunications Companies to Expand Authority Granted in Certificates of Public Convenience and Necessity; Docket No. 94-07-04, DPUC Investigation into the Competitive Provision of Local Exchange Service in Connecticut; Docket No. 94-07-07, DPUC Investigation of Local Service Options, Including Basic Telecommunications Service Policy Issues and the Definition and Components of Basic Telecommunications Service; Docket No. 94-07-08, DPUC

Exploration of Universal Service Policy Issues; and Docket No. 94-07-09, DPUC Exploration of the Lifeline Program Policy Issues. The remaining two proceedings, Docket No. 94-07-05, DPUC Investigation into the Competitive Provision of Customer Owned Coin Operated Telephone Service in Connecticut, and Docket No. 94-07-06, DPUC Investigation into the Competitive Provision of Alternative Operator Service in Connecticut, will be completed with the issuance of Final Decisions on or about June 28, 1995.

The Competition Phase also consists of currently opened dockets regarding participative architecture issues; Docket No. 94-10-04, DPUC Investigation into Participative Architecture Issues; and unbundling issues. Docket No. 94-10-02, DPUC Investigation into the Unbundling of the Southern New England Telephone Company's Local Telecommunications Network;[35] Docket No. 94-11-03, DPUC Investigation into the Unbundling of the New York Telephone Company's Local Telecommunications Network; and Docket No. 94-11-06, DPUC Investigation into the Unbundling of the Woodbury Telephone Company's Local Telecommunications Network. An exploration of appropriate quality of service standards in the new competitive environment will also be conducted.

Relevant to both the Competition Phase and the Alternative Regulation Phase, which are being conducted concurrently, the Department has initiated dockets for each of the state's telephone companies regarding the companies' cost of providing service: the instant docket; Docket No. 94-11-02, DPUC Investigation into the New York Telephone Company's Cost of Providing Service; and Docket No. 94-11-05, DPUC Investigation into the Woodbury Telephone Company's Cost of Providing Service. The Department has also initiated dockets to review each company's depreciation practices: Docket No. 94-10-03, DPUC Investigation into The Southern New England Telephone Company's Intrastate Depreciation Rates; Docket No. 94-11-04, DPUC Investigation into The New York Telephone Company's Intrastate Depreciation Rates; and Docket No. 94-11-07, DPUC Investigation into The Woodbury Telephone Company's Intrastate Depreciation Rates. In addition to being relevant to the unbundling proceedings, those detailed financial reviews will flow into proceedings to consider plans that may be filed

---

[35] The issues being addressed in Docket No. 94-10-02 include: the definition of and listing of unbundled elements to be filed by SNET in the second quarter of 1995; interconnection; use of equivalent elements from SNET's Access Tariff for multiplexing, transport and crossconnect termination; further unbundling and the unbundling process; E-911 issues; notification to appropriate State/Federal Agencies of operations; issues concerning repair calls; cooperative practices among SNET and competitive local exchange companies; white page/yellow page publishing/distribution issues; NXX assignment/costs issues; operator services (including provisioning directory assistance listings/busy line verification and interrupt); implementation of interconnection of networks; resale of local service; billing clearinghouse rules; operational implementation issues; tariff filings of unbundled elements versus pure contract basis without tariff filings; number portability; principles for pricing of unbundled elements; and subsidies and universal service fund as related to unbundling and resale of local service. While the Department has encouraged participants to present stipulations for the Department's consideration on these technical issues, numerous issues remain unresolved and are being litigated before the Department. At the participants' request, the Department is conducting an examination of mutual compensation plans as related to wireless carriers in a separate docket, Docket No. 95-04-04, DPUC Investigation into Wireless Mutual Compensation Plans.

by the telephone companies for alternative regulation, which, if approved, would require revenue requirements proceedings for each of the companies. The Department has initiated Docket No. 95-03-01, Application of The Southern New England Telephone Company for Financial Review and Proposed Framework for Alternative Regulation, in anticipation of SNET filing a plan for alternative regulation.

The Department has initiated Docket No. 94-10-05, DPUC Investigation of The Southern New England Telephone Company Affiliate Matters Associated with the Implementation of Public Act 94-83, which constitutes the holding company affiliate phase of implementation. While that docket is currently opened, the majority of holding company affiliate issues will be addressed at the end of the implementation process.

Public Act 94-83 presents a significant challenge to a number of regulatory principles that previously have guided Department decisions. The earlier statutory authority specifically focused on maximizing the public benefit by authorizing only a single telecommunications service provider for any given market. The Department, therefore, was able to direct the attention solely at regulating the conduct of a single corporation against a desired public standard of affordable and available telephone service. Under the provisions of Public Act 94-83, the Department faces an unprecedented task of managing the introduction of broader participation in the heretofore single-provider market. The Department intentionally designed the implementation process to chart an orderly transition to competition such that the full scope and scale of benefits envisioned by the Connecticut legislature in enacting Public Act 94-83 may be realized. The Department's implementation decisions to date have consistently reflected its stated commitment to establishing a regulatory framework that affords fair competition among incumbent providers and new competitors while protecting the interests of the Connecticut public.

II. DOCKET SCOPE AND PROCEDURE

The Department has noted a recurring theme in the representations made by participants in the proceedings to implement Public Act 94-83. Specifically, every participant, at one time or another, has suggested that "price" will be the basis for competition and the flexibility afforded them in setting price will be the principal determinant of their success. Simply stated, participants contend that they must be able to move prices downward as much as is reasonably possible in order to satisfy the public's expectations of low price and to achieve a sustainable advantage over competitors.

Depending on the interests of the various participants in the implementation proceedings, one of two concerns has generally been expressed: (1) incumbent providers (telephone companies or local exchange companies (LECs)) may seek to limit or deny any meaningful challenge to their market position from prospective competitors by effectively reducing the cost assigned to their competitive offerings thereby denying competitors the ability to achieve a real differential in price among competitive alternatives; or (2) prospective providers will seek to restrict the ability of

incumbent providers to reassign the common costs of the public switched telephone network away from competitive services thereby creating an artificial cost structure and higher retail prices for certain competitive and emerging competitive services. Underlying either view, the point of contention is the actual cost that an incumbent LEC should be permitted to assign to an individual telecommunications service. The focal point thus becomes the cost of service methodology used to determine the LEC's costs. The LEC will conduct cost studies to establish price "floors" for its services. The "floor" sets the minimum price for a service.

As the concerns of the participants in the implementation proceedings suggest, in a multiple provider telecommunications market, costing methodologies and studies will have a broader role than that of merely guiding the determination of equitable and reasonable rates to be charged customers, which was the role of such studies in the limited market participation model authorized by statute prior to enactment of Public Act 94-83. For example, the Act mandates the unbundling of "noncompetitive and emerging competitive functions of a telecommunications company's local telecommunications network . . . which . . . are reasonably capable of being tariffed and offered as separate services." Conn. Gen. Stat. § 16-247b. For some foreseeable period, participation in the Connecticut market by prospective competitors will be, in part, predicated upon the availability and affordability of certain telecommunications services from the incumbent LECs for resale. An evaluation of costs and the determination of price "floors," therefore, is an essential prerequisite to establishing fair and reasonable prices for such services. In addition, pursuant to the Act, the Department has authorized the resale of local service and in the near future will reclassify some LEC services as emerging competitive and competitive. These initiatives require greater understanding and attention to the analytical tools used in assigning costs of a common telecommunications network.

In recognition of the importance of cost allocation issues to the development of effective competition, the Department initiated this docket to reexamine the cost of service methodologies employed by The Southern New England Telephone Company.[36] In prior proceedings, the Department concluded that marginal cost methodologies were an acceptable form of costing for services in a competitive environment and authorized their use in specific instances. This proceeding expands upon those earlier efforts to consider any changes to the methodology or its

---

[36] The findings and conclusions developed in this proceeding are specific to SNET. Subsequent proceedings will examine the costing methodologies of Connecticut's two other telephone companies, Docket 94-11-02, DPUC Investigation into the New York Telephone Company's (NYTel) Cost of Providing Service, and Docket No. 94-11-05, DPUC Investigation into the Woodbury Telephone Company's (Woodbury) Cost of Providing Service. The Department established separate examinations for each company in order to afford full and fair examination of each company's cost methodologies without any unwarranted prejudice that might arise from a judgment rendered by this Department in a single, collective proceeding. These examinations are of such importance to the future evolution of the Connecticut marketplace to effective competition that the time and effort expended in this proceeding and the two companion proceedings directed at NYTel and Woodbury is a judicious use of Departmental resources.

components that are needed to improve its general utility to this Department and to facilitate the development of competition.

Pursuant to a Notice of Request for Comments dated December 16, 1994, all interested persons were given the opportunity to file written comments regarding any cost of service methodologies that might be used under the participative market model envisioned by Public Act 94-83.

The Department recognized The Southern New England Telephone Company (SNET), 227 Church Street, New Haven, Connecticut 06510; the Office of Consumer Counsel (OCC), 136 Main Street, Suite 501, New Britain, Connecticut 06051; and New York Telephone (NYTel), 1095 Avenue of the Americas, New York, New York 10036 as parties. The Office of the Attorney General (AG); Connecticut Ad Hoc Telecommunications Users Group (Ad Hoc); AT&T Communications of New England, Inc. (AT&T); MCI Telecommunications Corp. (MCI); MFS Telecom, Inc. (MFS); New England Cable Television Association, Inc. (NECTA); Sprint Communications Company L.P. (Sprint); Teleport Communications Group (TCG); and Wiltel, Inc. (Wiltel) requested and were granted intervenor status.

By Notice of Hearing dated December 19, 1994, a public hearing was held on January 31, 1995, February 1, 1995 and February 2, 1995, in the offices of the Department, One Central Park Plaza, New Britain, Connecticut 06051. That hearing was continued to March 1, 1995, at which time it was closed. Participants were given the opportunity to file Briefs and Reply Briefs.

The Department issued a draft Decision in this docket on May 23, 1995. Pursuant to Notice, all parties and intervenors were given an opportunity to file written exceptions and to present oral arguments on the draft Decision. SNET, OCC, AG and MCI filed written exceptions on June 5, 1995. Oral arguments were waived by the parties and intervenors.

III. DEPARTMENT ANALYSIS

A. COST METHODOLOGIES -- HISTORICAL OVERVIEW

Three Decisions have formed the principal framework for the Department's treatment of SNET's costs in recent years. Each Decision culminated broad investigations of the cost structures and cost methodologies used by SNET and guided the Department's subsequent determinations of its revenue requirements.

First, on August 8, 1990, the Department issued its Decision in Docket No. 88-03-31, Department of Public Utility Control Investigation into the Costs of Providing Intrastate Telecommunications Services by the Southern New England Telephone Company, in which, after extensive review of SNET's cost methodologies, the Department:

1. Prescribed the costing methods it considered appropriate for SNET to use in specific instances;

2. Established a preference for long run incremental costing methods over short run incremental costing methods;[37]

3. Established major service categories for SNET to use when performing fully distributed cost studies;[38]

4. Rejected the principle of Ramsey Pricing, a service pricing mechanism that placed the burden of residual costs on customers whose demand was the most inelastic; and

5. Imposed certain annual reporting requirements on SNET.

In its June 28, 1991 Decision in Docket No. 89-12-05, Department of Public Utility Control Investigation into the Rate Structures and Operational and Financial Status of the Southern New England Telephone Company - Phase II, the Department again addressed SNET's cost of service methodologies and found that the incremental cost studies performed by SNET were compliant with the Department's previous decisions concerning cost of service and that the continued use of the specified methodology was in the public's best interest. Thereafter the Department again reaffirmed its previous opinions on matters of cost of service in the July 7, 1993 Decision in Docket No. 92-09-19, Application of the Southern New England Telephone Company to Amend Its Rates and Rate Structure, p. 139.

B. COST METHODOLOGIES -- GENERAL OVERVIEW

The public switched telephone network currently owned and operated by SNET incorporates a mix of telecommunications technologies as part of a comprehensive technology deployment scheme that has been implemented over a period of decades. In recent years, SNET's network (like the public switched networks of all local exchange

---

[37] Incremental cost refers to the additional costs incurred by SNET from the production of an additional quantity of service. Long run and short run refer to the time frame over which costs are to be measured. In general terms, the long run method assumes all costs are variable, while the short run method measures costs over a fixed period of time, e.g. a one to three year period, and does not consider costs that are viewed as fixed or sunk. The Department in Docket Nos. 88-03-31 and 89-12-05 specifically addressed methods of measuring "marginal cost" of producing additional units of output. For purposes of discussion, the Department and the participants have evidenced general agreement that the term "marginal cost" as used in the Department's previous Decisions is synonymous with "incremental cost." For purposes of this Decision, therefore, the Department will employ only the term incremental cost.

[38] The concept of fully distributed cost can be understood most easily by considering a firm that produces only one product. If the firm produces 1000 units of the product at a total cost of $1000, its fully distributed cost is $1 per unit. If more than one product is produced, to the extent that some of its costs are common, that is they contribute to the production of more than one product, those common costs must be allocated among the products to which they are commonly attributable in order to calculate the fully distributed cost of any of the firm's products.

carriers) has been in an almost continuous state of transformation as new technologies have been introduced to meet the public's demand for new and more powerful telecommunications services. A substantial portion of the technology deployment emphasis today is the consequence of a fundamental shift in underlying transport and switching technologies as the functional emphasis shifts from analog to narrowband digital and broadband digital technologies. This evolution both permits an opportunity to improve the fundamental economics (i.e., price performance) associated with providing basic local telephone service and represents an essential functional platform for the development of new services. As such, it is essential that cost methodologies be able to identify the cost components of the public switched telephone network used for any particular service and assign the costs thereof to that service. Because most cost components of the public switched telephone network are shared among most telecommunications services offered by the LECs, telecommunications cost studies represent, for the most part, a means of assigning common network costs to the appropriate telecommunications service they are intended to support.

Fundamentally, a cost of service methodology can be as simple as assigning Central Office Equipment switching costs based on the total minutes of use experienced by that piece of technology to the various telecommunications services it supports. At another level, those same costs may be assigned to the various telecommunications services on some other basis, such as peak usage. Either of the approaches would be considered a reasonable approach, although they might produce significantly different views of cost causation and contribution. Simply stated, the process of assigning costs continues to evolve from basic assignments of gross costs to increasingly more sophisticated assignments as information is developed that clarifies the level of support provided by any particular technology to a specific service offering.

In past proceedings, the Department analyzed SNET performance data and cost studies and found that they generally represented the real cost for installed services and major service categories. In each instance, SNET constructed its representations to this Department using Long Run Incremental Cost (LRIC) and Fully Distributed Cost (FDC) techniques in accordance with the Department's directions. However, the Department also found that the data and studies submitted to it could be enhanced and, accordingly, their value to the ratemaking process improved. Notwithstanding that potential for improvement, LRIC studies have been the principal tool available to the Department to determine SNET's cost of providing telephone services and to price the services.

This docket was initiated to afford all those interested in the issue an opportunity to examine and evaluate the current long run incremental cost methodologies approved by the Department for use by SNET in light of the participative market model envisioned by Public Act 94-83. Subsection C., below, details the positions put forth by the various participants in this proceeding. To put into context those positions, however, it is first

necessary to generally set forth the two principal cost methodologies discussed in this proceeding.[39]

Long-Run Incremental Cost (LRIC) - an economic technique that considers an increment of demand smaller than the demand for the total service. This methodology is designed to determine the additional cost per unit that the supplier will actually incur (or the economic benefit that will be realized) over time with any increase (or decrease) in providing the volumes of the service that are under consideration. Kahn Testimony, p.3.

Total Service Long-Run Incremental Cost (TSLRIC) - an economic technique that is a modification of the LRIC approach but employs the total demand for a service as the base for calculation. In the current proceeding, two versions of TSLRIC were debated, one introduced primarily by SNET (hereafter referred to as TSLRIC(SNET)) and the other by MCI (hereafter referred to as TSLRIC(MCI)). Some explanation of each is necessary in order to properly frame the discussion later in this decision and the Department's specific conclusions.

TSLRIC(SNET) presumes that a substantial level of physical plant investment has already been made by the LEC and concerns itself only with determining the incremental costs of providing additional service in the future using available, least cost technologies. Tr. 01/31/95, p. 16. TSLRIC(SNET) constructs its evaluation upon a company's existing technological investment and logistics and considers the total avoidable costs if the service were to be discontinued. Tr. 03/01/95, p. 649. Both of these principles are generally accepted techniques and previously approved by this Department. SNET considers the existing network and cost structure as a given to determine the most efficient changes to its facilities. According to SNET, investment decisions would be substantially different if existing investment was not incorporated in the model. Tr. 2/1/95, p. 209.

TSLRIC(MCI) proposes, on the other hand, that the Department authorize use of a modified TSLRIC methodology that accepts as a given the locations of existing basic facilities, but assumes for the exercise that the physical facilities themselves do not currently exist. In doing so, MCI implicitly concludes that the physical plant in use by SNET today could constitute a relatively inefficient economic decision and, therefore, a substitute architecture is necessary from which all incremental cost can be better determined. This somewhat existentialist methodology has attracted a certain level of regulatory interest throughout the country, but has yet to achieve a level of general acceptance by either regulators or the industry.

---

[39] A third type of cost study was presented, but not as a substitute for incremental cost analysis. The AG and OCC advocate consideration of stand-alone costs as an additional cost standard. Tr. 02/01/95, pp. 260-62; Gabel Testimony p. 7; Tr. 03/01/95 pp. 703-07; Cooper Surrebuttal Testimony, p. 11-12. Stand-alone costs are not incremental costs, but the total cost of producing a single service separately from all other services. Tr. 03/01/95 p. 623.

In testimony before the Department, MCI suggested that a "scorched node" approach such as it has proposed with TSLRIC(MCI) was essential to characterizing a more accurate representation of incremental cost in such a dynamic and changing technology climate. MCI proposed the Department employ a model that employs a conceptual geographic template in which locations of all existing routes and facilities are accepted as given and, on a forward looking basis, only the most modern, least cost technology is utilized to satisfy incremental requirements for service. Though MCI accepts the fact that this does not produce the real incremental cost of service, in MCI's view, it produces the most desirable outcome (i.e. the lowest possible incremental cost). Tr. 3/1/95, pp. 734-35.

Having set forth this general overview of the main debate surrounding the issues of TSLRIC methodology, the following section provides in more detail the respective participants' positions on the matter.

C. POSITIONS OF PARTICIPANTS

1. The Southern New England Telephone Company

SNET appears in this proceeding as the principal subject of the Department's investigation of cost-of-service methodologies. Other participants in this proceeding, though their participation is essential to defining the most appropriate technical outcome, are generally not telephone companies and are, therefore, not subject to the conditions placed upon SNET by this proceeding and Public Act 94-83. Because of it's unique position, SNET availed itself of the opportunity to offer comment upon both the suitability of current cost-of-service methodologies previously prescribed by the Department as well as techniques proposed by other participants in this proceeding.

SNET constructs its position in this proceeding on independent, but related, arguments. First, SNET contends that its proposed methods of calculating cost of service are consistent with those prescribed by the Department's past decisions in Docket Nos. 88-03-31 and 89-12-05. SNET Comments, p. 12. Second, SNET suggests that the incremental cost methods adopted by the Department in those proceedings were purposefully chosen because of their presumed utility in a competitive marketplace such as that envisioned by Public Act 94-83. SNET Comments, p. 13. Third, SNET suggests that its proposed cost-of-service methodologies adhere to sound economic principles, will foster competition and will do so in the most efficient and effective manner possible. SNET Comments, pp. 16 and 21. Fourth, SNET states that the study periods it currently uses are generally three to five years in duration, sufficiently suitable for this Department's planning efforts. Finally, SNET suggests that its methodology is sufficiently flexible to meet future uncertainty because investment costs generally are not limited to the study period given the use of techniques that extend the study period over the service life of the investment. Response to Interrogatory MCI 1-4.

On the other hand, SNET expresses unqualified disagreement with MCI's proposed methodology for determining incremental cost-of-service in the future.

SNET's rebuttal argument to adopting MCI's approach is similarly constructed upon five independent, but related, arguments. First, SNET notes that much of the cost information necessary to undertake MCI's approach is internal to SNET's cost models and is not available for outside review or distribution. Second, SNET suggests that the level of effort required of it to satisfy the MCI model's design requirements could dictate excessive "unbundling" of current service offerings beyond the point of independent customer demand and merely generate excessive administrative costs for SNET. Third, SNET concludes that the work products envisioned within MCI's proposal would entail a substantially increased resource commitment on the part of SNET and would offer the Department little additional confidence in either the integrity of the process or the competitive equity afforded by the prices for specific service elements. Fourth, and most controversial, according to SNET, the requirement by the MCI methodology to use a surrogate cost structure rather than the actual network costs would inflate the base costs calculated under SNET's methodology and would unnecessarily increase the price floor available to SNET for its services. Finally, SNET objects to the exclusion from the MCI proposed methodology of any technologies except the "least cost" technologies, arguing that such a method effectively ignores the very real fact that technology investment decisions are influenced by the longer-term operational performance considerations and customer requirements encompassed in its technology deployment program. SNET Comments, pp. 17-20.

2. MCI Telecommunications Corporation

MCI has participated in this proceeding as a current provider of interexchange carrier services and a prospective provider of local exchange services. It has submitted for consideration in this proceeding the sole alternative cost-of-service methodology to that proposed by SNET which it believes is better suited to the goals and objectives of a pluralistic market as envisioned by the provisions of Public Act 94-83. In the course of sponsoring this alternative, MCI has provided extensive testimony on the merits of its proposal and the relative demerits of the considered SNET alternative.

MCI's interest in cost-of-service issues is principally founded upon an expressed concern that SNET will seek to subsidize its competitive offerings by understating the incremental costs of providing additional competitive services on the public switched telephone network. The projected consequence of such subsidization, according to MCI, would be to deter market entry by prospective competitors and effectively terminate growth of a competitive marketplace in Connecticut. MCI Comments, pp. 3-4. MCI contends that SNET has demonstrated a predisposition to minimize the long-run incremental costs associated with any particular service in order to establish the lowest price floor possible and afford itself a sustainable competitive advantage over prospective participants. From MCI's vantage point, any decision by this Department to adopt SNET's proposal would factually understate the cost of providing telecommunications services for a prospective competitor and provide SNET the unequaled ability to underprice the competition for any given telecommunications service with relative market immunity.

MCI, therefore, proposes in this proceeding that the Department adopt use of a modified Total Service Long Run Incremental Cost methodology as the basis for all cost-of-service examinations in the future and that only such reviews be used to set prices for SNET services. MCI offers this even though it acknowledges that the calculations using such a methodology may produce an incremental cost for services higher than the SNET methodology and will, undoubtedly, translate to higher than necessary prices for some services where it is applied. MCI counters that effect by asserting that any cost of service methodology employed by the Department must promote economically efficient decisions by the subject company, prevent cross-subsidization of services and keep prices close to costs if they are to be deemed competitively acceptable and publicly beneficial. MCI Comments, p. 2. According to MCI's view, cost of service studies must be consistently based upon TSLRIC principles to be supportive of the stated goals embodied in Public Act 94-83. MCI Comments, pp. 3-6.

MCI proposes that SNET be required by the Department to perform a TSLRIC cost study for each unbundled element of a proposed service offering prior to establishing a tariffed price for any such offering. MCI further recommends that the Department adopt a cost of service methodology for SNET wherein:

1. Costs are narrowly defined and solely determined on the basis of a "building block" concept;

2. The only increment of change permissible for use in determining cost is the absolute total change in unit quantity being considered, not simply a surrogate single unit of change;

3. The period of consideration in the analysis is long-run and considers all inputs as variable;

4. Only least cost technologies are considered for use in the analysis;

5. Costs are associated with a prescribed building block or group of building blocks to the extent that such costs are incurred in service in general;

6. The current configuration of, and proposed changes to, the existing network architecture is considered in cost estimation methods and any cost projections are based on complete replacement of the facility; and

7. Annual cost factors and investment loadings are used by SNET when actual costs cannot be easily identified or cost-effectively determined.

MCI Comments, pp. 7-9.

MCI frames its proposal as a companion offering for the Department to consider as it deliberates the merits of both the currently prescribed cost-of-service methodologies used by SNET and the modifications to those methodologies introduced in these proceedings. In support of its position, MCI sponsored witnesses in the

hearings conducted by the Department that represented to the Department that its proposal constituted a superior regulatory tool to that proposed by SNET and suggested that it alone would be sufficient to meet the goals and objectives stipulated by the General Assembly in Public Act 94-83.

3. The Office of the Attorney General

The AG participated in these proceedings as an intervenor. While the AG did not introduce an independent proposal for the Department to consider, it sponsored a witness to present independent opinion on the relative merits of the two TSLRIC proposals outlined above. The witness for the AG's office prefaced his opinion of the proposals by suggesting that the only interest the Department should have in any cost-of-service methodology is in "ensur[ing] that captive ratepayers are not abused and receive the full benefits from the costs that they are bearing." Cooper Testimony, p.1. The AG suggested in the testimony of its witness that use by this Department of marginal pricing theory and its associated marginal cost foundation is an acceptable regulatory response to broader market participation envisioned under Public Act 94-83, and that its only objection is in several analytical techniques proposed by SNET in its framework methodology. The AG suggests that if the analytical techniques in question (e.g. the proposed time period for analysis, the scope of costs to be analyzed and a basic allocation rule) are left intact by the Department, those techniques will collectively serve to "maximize the burden placed on captive ratepayers." Cooper Testimony, p. 2. However, by using a Total Service Long Run Incremental Cost methodology the concerns are mitigated and SNET's competitive position will not be threatened because "the scale and scope are so large . . . that imposing a cost floor of total long run incremental cost will not result in a rapid loss of business." Cooper Surrebuttal, p. 6. In the AG's view, there are specific predictable rules that must be applied to ensure that competitors are not placed at a disadvantage. According to the AG, consumers are not compensated for the costs of facilities used to provide competitive services. Cooper Testimony, p. 5.

The AG maintains that price cap regulation does not alter the incentive to place joint and common costs above the line and profits below when some lines of business are above the line while others are below. The AG contends that the burden of joint and common costs placed on basic access should be minimized as a matter of social policy. Further, the AG opines that, in those cases where common and joint costs are incurred by enterprises selling a combination of competitive and monopoly services which cannot be allocated, the contribution from competitive services to noncompetitive should be maximized. Cooper Testimony, p. 8

4. The Office of Consumer Counsel

The Office of Consumer Counsel submitted an independent proposal for the Department's consideration in this proceeding and sponsored a witness to discuss that proposal as well as to offer opinion on the relative merits of the proposals submitted by others. OCC proposes that the Department authorize sponsorship of a supplemental cost analysis that would provide a completely independent view of the costs of service

for SNET. OCC suggests that this is important because the industry has "a track record of understating what is the marginal cost of providing competitive services." Gabel, Tr. 02/01/95, p. 250. OCC states that the principles adopted in Docket Nos. 88-03-31 and 89-12-05 should continue to apply. In the OCC's view, the Department, the state and telecommunications service consumers will benefit by considering independent cost analyses. OCC Comments, pp. 1-4.

In addition, OCC expresses its support for forward-looking as well as embedded cost studies using the Local Exchange Cost Optimization Model (LECOM). Gabel Testimony, p. 4. According to OCC, LECOM can be used to develop stand alone costs, TSLRIC and LRIC. The objective of the stand-alone cost study is to estimate the minimum of the long-run cost of production. Gabel Testimony, pp. 7 and 8.

5. AT&T Communications of New England, Inc.

AT&T participated in this proceeding as an intervenor for the expressed purpose of providing this Department the benefit of its experience and expertise in the issue of cost-of-service methods. Throughout the proceedings, AT&T served to mediate some of the points of disagreement that emerged between the principal methodology proposals offered by SNET and MCI. AT&T cautioned the Department on the importance of accurately determining cost-of-service, noting that the studies to be performed using any approved method must "determin[e] whether a service, group of services or unbundled network element is being subsidized or is providing a subsidy." AT&T Reply Brief, pg. 2. In the viewpoint of AT&T, only methodologies that measure the total long run demand for a given service or unbundled network element are capable of determining whether subsidization is occurring. AT&T Reply Comments, pp. 1 and 2.

AT&T expresses a general preference for SNET's long run incremental cost methodology for pricing unbundled local service elements (noting that its approach closely parallels its own proposal), but suggests that permitting SNET to calculate incremental cost on anything other than total demand for the service will so distort the incremental cost structures that it will impede the development of effective market alternatives. AT&T Comments, pp. 1-2. According to AT&T, the assumptions about demand are critical since the determination of a subsidy can only be determined after all the "directly attributable fixed and variable costs incurred in providing it" are identified and incorporated into the equation. AT&T Comments, p. 2; AT&T Reply Brief, p.2.

According to AT&T, identification of a subsidy can only be ensured if total demand serves as the basis for calculation in any long-run cost methodology. Therefore, it is the opinion of AT&T that in the long term, SNET's pricing of unbundled local network elements must be based on total service demand and employ the SNET-proposed methodology. This, according to AT&T, will produce the correct price floor for full local service resale or unbundled local network elements because the methodology requires that revenues earned from a particular service cover at least the additional costs incurred in providing the service, thus ensuring that the service is not being inadvertently subsidized. Additionally, AT&T is of the opinion that adopting the SNET-

proposed TSLRIC methodology will produce an efficient price level and will send the appropriate market entry and market exit signals to prospective service providers. AT&T Comments, pp. 5-7.

6. New England Cable Television Association, Inc.

NECTA likewise participated in this proceeding as an intervenor. NECTA states that SNET's cost studies should be fully documented with a comprehensive explanation of the Company's underlying assumptions, data inputs, and algorithms to enable others, including the Department, to evaluate independently the methodology and results. NECTA further is of the view that SNET should be required to conduct and submit sensitivity analyses, key variables, and assumptions that are reflected in its cost studies. NECTA Comments, p. 6.

NECTA is concerned about SNET's recovery of costs between competitive and monopoly service categories. NECTA contends that these costs should be based upon cost-causation principles, that is, the cause for a particular cost to be incurred should determine the recovery of the cost among SNET's services. According to NECTA, the reason for deploying new technology may not be related to providing basic telephone service; therefore, the cost to deploy the new technology should be reflected fully in the incremental cost study for the new service or feature. NECTA states that, without detailed support of the inputs and formulas used in these models, it is impossible for the Department to conclude that the Company's marginal cost studies provide reasonable estimates of marginal cost. NECTA Comments, p. 3.

NECTA criticizes the process of utilizing LRIC for all of the services offered by SNET, arguing that the resulting aggregated incremental costs are less than the total costs of operating the business. According to NECTA, this issue is compounded under traditional public utility regulation by the fact that the total operating costs are based on original and embedded costs. Tr. 02/01/95, p. 283.

NECTA recommends that the Department work with the Federal Communications Commission to review jointly SNET's video dialtone (VDT) and broadband plans since telephony and "common" plant investment necessary for VDT are assigned to federal-state jurisdictions according to standard separation rules. Without cooperation, each jurisdiction may view the plans in a piecemeal and thus misleading manner. NECTA Comments, pp. 8 and 9.

NECTA maintains that SNET should be required to show that the incremental revenues or cost savings that are directly attributable to the commitment of new plant investment will be sufficient to earn the authorized rate of return on that incremental investment. If SNET is not so required, according to NECTA, the services provided by the new plant investment will be subsidized by other services. NECTA Comments, p.10.

D. COST METHODOLOGIES -- DEPARTMENTAL REVIEW

1. Defining The Investigation

This proceeding specifically addresses the cost of service methodology and cost studies presently authorized by this Department and utilized by SNET to determine its costs of providing all telecommunications services. The Department's investigation has focused on the future utility of these approaches to calculating and assigning cost to different telecommunications services as well as the underlying economic theory upon which these methodologies are predicated. See, e.g., Cornell Testimony, p. 4; Gabel Testimony, p. 7; Kahn Testimony, p. 3; Selwyn Testimony, p. 4.

The Department, therefore, has limited its interest in this proceeding to the subject of incremental cost methodologies. The Fully Distributed Cost methods are not being addressed in this proceeding given that the results of studies employing FDC techniques are not useful in determining the price of individual telecommunications services or service elements. This Decision, however, should by no means be construed as indicating any diminished support for FDC studies or methodologies. The Department continues to believe that these studies are prudent techniques for separating total company costs into major service categories for regulatory accountability. The Department previously mandated that FDC studies be completed by all LECs on an annual basis; Decision, Docket No. 88-03-01, August 8, 1990, p. 14; said mandate will remain effective unless and until the Department determines that such studies constitute an unnecessary burden upon the incumbent LEC.

As an important aside, the Department notes that, in contrast to the relatively narrow scope articulated by the Department upon initiating this investigation, OCC, NECTA and AG have used this proceeding as a vehicle to introduce their concerns over cost allocations and pricing rules. One such concern is that SNET is engaging in highly discriminatory Ramsey pricing techniques. Tr. 3/1/95, pp. 795 and 796; AG Brief, pp. 7 and 8; NECTA Brief, pp. 7, 14; OCC Brief, pp. 8-10, 18-23. In a prior investigation by the Department it was determined that the technique had no useful role to play in either a regulated or competitive telecommunications market and, therefore, prohibited its use. Decision, Docket No. 88-03-31, August 8, 1990, p.10. Neither the market conditions nor the statutory provisions of Public Act 94-83 dictate the modification or rescission of that Decision. Therefore, unless and until evidence is offered to warrant further reconsideration, SNET is bound by the Department's previous finding concerning Ramsey pricing.

2. Cost of Service Principles In A Participative Market

Enactment of Public Act 94-83 permanently altered the economic constructs that had heretofore governed the Department's ratemaking process for LECs. As stated earlier, broader market participation in local exchange services, the consequent authorization of local service resale, unbundling of the local network, and the eventual reclassification of some telecommunications services as emerging competitive and competitive necessitate greater attention by this Department to identifying the most

appropriate analytical tools for assigning common and joint costs in a competitive environment.

The Department's previous Decisions regarding cost of service provide a useful decision framework for this proceeding. Certain principles and precepts established in those Decisions continue to be relevant to and provide a useful foundation for critically examining costs of providing telecommunications services in a relatively dynamic environment.

First, the Department remains committed to its current practice of assigning costs based on cost causation where such costs are known and accepted by the Department as factual. The Department's primary criterion and goal of cost studies is that they must represent the cost of providing service. Further, costs must be real or reasonable estimates and they must be related to the service under study. Decision, Docket No. 92-09-19, July 7, 1993, p. 139; Decision, Docket No. 89-12-05, June 28, 1991, pp. 9 and 10; Decision, Docket No. 88-03-31, August 8, 1990, p. 15. Any methodology to be approved by the Department must employ principles of cost causation that are consistent with this Department's prior decisions and practices.

For costs to be considered as attributable to a specific service, the incurred cost at issue must be a function of the change in demand for the service or be avoidable if that increment does not occur. However, in SNET's current long-run incremental cost studies, allocated costs (those SNET believes are not attributable on a cost causative basis) are purposefully excluded from the cost studies the same as sunk costs. Tr. 1/31/95, p. 14. SNET contends that sunk costs have nothing to do with the cost consequences of increasing or decreasing output, or abandoning output completely and are, therefore, appropriately excluded from consideration. Tr. 3/1/95, p. 623. That opinion is not generally held by all participants in this proceeding. OCC counters SNET's exclusion by noting that the rapid write-off of equipment that is sunk should be attributed to the service that causes the write-off in order to properly evaluate the commitment decision. Tr. 02/01/95, p. 258. The AG endorses allocating sunk costs to establish correct prices for unbundled local access elements which, in turn, will promote competition. Tr. 3/1/95, p. 685. In the Decision in Docket No. 88-03-31, the Department ordered SNET to include fixed, one-time start up costs (sunk costs) in all marginal cost analyses performed to support proposed service rates. Decision, Docket No. 88-03-31, August 8, 1990, p. 10. The evidence presented in this proceeding does not warrant a change in Departmental treatment of sunk costs in SNET's cost methodologies. Furthermore, nothing contained in Public Act 94-83 offers the Department a compelling argument to modify or rescind its previous positions on this subject. Therefore, the Department reaffirms its prior requirement that SNET include these costs and comply with the economic definition of long-run incremental costs, that is, the period where all costs are considered variable.

The Department also believes that for cost studies to be useful they must be documented in a manner that the source of the data can be audited. In the context of this proceeding, MCI proposes that SNET guess as to what its costs would be to use the latest most cost efficient technology in its entire network. Adoption by the

Department of this approach would effectively reduce the level of confidence that would be evidenced in any cost methodology if technology and costs continue to evidence price changes as rapidly as they have to date. TSLRIC(MCI) provides this Department only hypothetical costs. Such costs are susceptible to manipulation and misrepresentation. On the other hand, SNET's cost studies have to date reflected SNET's actual technology investment in its public switched network and, by design, incorporate all new technology commitments and plant additions actually expected to occur within the associated planning horizon. Tr. 01/31/95 pp. 16 and 20. In contrast, the TSLRIC(MCI) methodology is conceived on a hypothetical network and theoretical costs. The approach expressly ignores the existing technologies and past investment decisions, which heavily influence the company's actual decision regarding the least cost method of increasing or decreasing output of service in the future.

Additionally, the Department remains committed to the following principles adopted in its previous cost of service decisions. Any cost methodology adopted by the Department:

- must be forward looking in perspective (Decision, Docket No. 88-03-31, August 8, 1990, III.A.1.);
- must distinguish among costs incurred on behalf of monopoly, emerging competitive and competitive services (Id.);
- must provide an accurate means of measuring incremental cost for services (Decision, Docket No. 89-12-05, June 28, 1991, V.4.);
- must recognize the effect of broader market participation on the goals of establishing equitable and reasonable rates (Id., IV.A.);
- must provide consideration to both Fully Distributed Costs (FDC) and Long-Run Incremental Cost (LRIC) (Id.);
- must promote economic efficiency (i.e., should maximize the utilization of existing resources) (Decision, Docket No. 88-03-31, August 8, 1990, III.B.);
- must preclude any remaining monopoly services from being allocated costs otherwise properly attributable to competitive services (Id.);
- must allow the burden of common costs, such as general overhead, to be shared fairly by all users (Id.); and
- must not pose an undue administrative and financial burden on the company required to perform it (Id.).

Finally, the Department and the participants must recognize and accept the fact that any cost-of-service study performed on behalf of this Department will affect the subsequent rate designs proposed by the LECs for recovery of any incurred cost of

monopoly, emerging competitive or competitive services. Decision, Docket No. 88-03-31, August 8, 1990, III.A.1.

3. LRIC versus TSLRIC(SNET) versus TSLRIC(MCI)

At issue in this proceeding is precisely what methodology (or methodologies) will be authorized by this Department for use by SNET in determining the respective costs-of-service for its noncompetitive, emerging competitive and competitive offerings. The importance of such a determination is the fact that the prescribed methodology (or methodologies) will establish the underlying price floors upon which all prices will be calculated. With the introduction of competition to the services of SNET it is imperative that those price floors are set in a manner equitable to all interested parties, including the buying public of Connecticut.

The participants in this proceeding have proposed a number of empirical methodologies to determine SNET's cost of providing service. Each of them provide a cohesive, analytical framework to evaluating cost-of-service issues in an increasingly competitive environment. Some examination of each is warranted at this point to provide a better understanding of the views of the Department on each.

The first is the Long Run Incremental Cost (LRIC) method which is simply a means of estimating the additional (incremental) cost incurred by the provider to add one additional unit of output to satisfy customer demand. For purposes of this proceeding, that output may be to add one additional customer to the network, to transport one additional call to an interexchange carrier, or to provide call waiting to one additional subscriber.

The second is the Total Service Long Run Incremental Cost (TSLRIC) method which represents a slight modification of the LRIC method described above and which the Department has designated TSLRIC(SNET) since it is the basic cost-of-service method employed by SNET today. Like the LRIC method, it is a means of estimating the additional cost incurred by the provider to provide additional output. The primary difference between LRIC and TSLRIC(SNET) is the level of output being considered in the calculations. Gabel, Tr. February 1, 1995, p. 242. LRIC scenarios, by design, examine an increment of demand smaller than the demand for the total service and the additional cost per unit that the supplier will incur or save in providing the service. TSLRIC(SNET) scenarios, however, consider the total addition to output that may be experienced for a service (always something more than one) and calculates an average unit cost for each increment in the total. Supporters of the TSLRIC(SNET) approach contend that by considering the total output for a service in the calculation, a lower average incremental cost is produced. These supporters argue that the lower average incremental cost produced by TSLRIC(SNET) more accurately reflects the real costs incurred by the LECs because of the extraordinary economies of scale generally recognized by today's telecommunications technology.

The third methodology at issue is a modification of the conventional TSLRIC method described above which the Department has designated TSLRIC(MCI) for its

principal proponent in this proceeding. Like the conventional TSLRIC method described above, this adaptation focuses on capturing the unrecognized economic benefits of scale by considering only the total incremental demand for a particular service. However, it deviates from the generally accepted approach by requiring the analyst to develop a hypothetical economic base upon which to perform the analysis. Often referred to in these proceedings as a "blank slate" approach, it effectively ignores the existing network topology and cost structure, preferring to model incremental cost against a state of the art surrogate network. Proponents of TSLRIC(MCI) assert that the method provides the Department a better perspective than either LRIC or TSLRIC(SNET) of what incremental cost would be if the existing LEC infrastructure were state-of-the-art (as it is envisioned in this method) and built almost from scratch as they would have to be for effective competition to be realized in Connecticut.

The Department has examined at length each of the three proposed approaches and listened to the very cogent arguments of each of the sponsors. The Department has also reviewed at length its decisions in prior proceedings with regard to this issue. It is interesting to note that many of the same arguments and concerns raised in this proceeding were raised in both 88-03-31 and 89-12-05 when this Department outlined its rules governing cost-of-service studies for the local exchange carriers. In so doing, the Department has observed that both the LRIC and TSLRIC(SNET) approaches represent two generally accepted long-run cost methodologies, both capable of measuring incremental provisioning costs. TSLRIC(MCI) presents the Department with similar capabilities, but for the reasons outlined below, MCI did not present sufficient evidence in this proceeding for the Department to adopt TSLRIC(MCI) over the proven methodologies that are currently employed by SNET.

The value to this Department of any cost of service methodology will be found in its ability to facilitate fair and equitable pricing for telecommunications services in the future. Therefore, the Department will require that all cost methodologies and associated cost studies exhibit a forward looking orientation in their design and construction. In that regard, both TSLRIC(SNET) and TSLRIC(MCI) satisfy the objective. As explained earlier, TSLRIC(SNET) presumes that a substantial level of physical plant investment has already been made by the LEC and concerns itself only with determining the incremental costs of providing additional service in the future using available, least cost technologies. This methodology constructs its evaluation upon a company's existing technology investment and considers the total avoidable costs if the service were to be discontinued. TSLRIC(MCI), on the other hand, accepts as a given the locations of existing basic facilities and routings, but assumes for the exercise that the physical facilities do not currently exist. From that foundation, on a forward looking basis only the most modern, least cost technology is utilized to satisfy incremental requests for service.

In theory, TSLRIC(MCI) attempts to include all costs by treating them as variable, which is the proper economic definition of the long run. The Department agrees in principal with this concept and in prior Decisions ordered SNET to develop methods that treat all costs as variable. Docket No. 88-03-31, Decision dated August 8, 1990, p. 13. The dilemma faced by both this Department and the telecommunications

industry is that many costs associated with the public switched network have been and will continue to be common to all services, regulated, emerging competitive and competitive, in the long run, and any allocation to a service category is by consequence highly subjective. While acknowledging the conceptual improvements of MCI's approach over those currently approved by the Department, it should be noted that MCI did not offer this Department a substantive means of eliminating the level of subjectivity and discretionary assignment that must be applied to this problem in its presentation or discussion of TSLRIC(MCI).

The Department has noticed that SNET generally includes within its methodology consideration for "lumpy investments" (investments that may provide for several units of output) and that the technical properties of the methodology assign these investment costs in relative proportion to other capacity determinants to determine the long run incremental costs of the investments. Therefore, all costs that conceivably change as a function of change in demand for the service (including total elimination of the service) are included. These costs include fixed costs that will be incurred to produce either an increment of output of a particular service or the incremental cost incurred by continuing to offer the entire service. The costs also include the incremental cost that would be avoided if either output were not expanded by that amount or if the output of the entire service were abandoned. Response to Interrogatory MCI 1-15. It is the opinion of this Department that such an approach is both a fair and reasonable means to address the dynamic nature of the public switched network in contrast to requiring a theoretical exercise in redesigning the entire public switched network whenever a major cost element experiences a change, which would be required were MCI's TSLRIC methodology adopted for use by this Department.

The Department is of the opinion that the unanticipated effect of MCI's proposed approach would be the creation of a "phantom" network where the economic composition of that network will increasingly have no relationship to the physical reality of the local exchange network. Furthermore, the use of hypothetical costs in the methodology has the potential to produce higher than necessary price floors affording an artificial price support benefiting only prospective competitors. Over time, technology decisions face the possibility of being subverted to economically inefficient alternatives with little or no regard for the technical properties of the technology or the suitability of the network topology to provide service. Furthermore, the requirement of TSLRIC(MCI) to model network costs on the basis of replacement cost using the latest technology has the potential to artificially inflate the true economic costs incurred by SNET since savings realized from economies of scale and scope would be effectively ignored in the exercise.

Likewise, TSLRIC(MCI) might result in lower price floors if, for example, investment were estimated at low levels based on the sale price of new equipment. Some manufacturers have the practice of selling the initial central office switching equipment below cost and then selling additions to the same equipment significantly above cost. Upon closer examination, it is clear that although the existing locations and routing are considered as given, all facilities and equipment are considered new and,

therefore, all costs are for new facilities and equipment, regardless of what currently exists. Tr. 3/1/95, pp. 738 and 739.

After a thorough examination of MCI's submissions in this proceeding, the Department remains interested in the conceptual benefits suggested by the TSLRIC(MCI) approach. Its proponents suggest that it alone captures all costs associated with implementing any technology decision. Likewise, its proponents suggest that it alone provides the Department a mirror image of the costs of service that would be incurred by any prospective competitor for the same service. Although MCI has advocated the use of its definition of TSLRIC since 1990, the discussion in this proceeding has been the most extensive to date. However, MCI has not offered this Department the compelling evidence needed to outweigh the demonstrated value of conventional LRIC and TSLRIC methodologies currently employed by the Department. In fact, MCI offers as evidence only one completed study employing its methodology for the purpose of examining residential service on a nationwide basis. Tr. 2/2/95, pp. 398 and 399. It is the Department's view, therefore, that the evidence submitted in this proceeding is insufficient to permit this Department to endorse TSLRIC(MCI) for use in Connecticut at this time. Furthermore, the adoption of an unfamiliar analytical technique such as TSLRIC(MCI) at this juncture would irreparably delay the introduction of unbundled local exchange services for use by competitive providers. Any unwarranted delay at this point would impede the introduction of competition to Connecticut and violate one of the principal objectives of Public Act 94-83.

Separately, the Department examined the TSLRIC(SNET) offering for potential adoption by the Department. SNET represents that its TSLRIC methodology prudently considers only the telecommunications technologies committed for deployment over the near term in accordance with approved modernization initiatives and construction programs previously reviewed by this Department. SNET further suggests that its decision to deploy new technology in its public switched network in tandem with projected capacity expansion activities constitutes a least cost modernization strategy that should not be precluded or economically penalized by the Department's choice of any specific cost methodology. In SNET's view, the TSLRIC(MCI) methodology would unfairly deny the public the economic benefit of its current approach by requiring it to substitute in its economic analysis a single "least cost" technology regardless of what is actually committed to in the approved construction plans. SNET Comments, pp. 17-20. SNET has suggested throughout these proceedings a preference for TSLRIC(SNET) because it represents a necessary adaptation of theoretical principles to the competitive realities of broader market participation.

After extensive examination of both the assumptions and design criteria associated with the TSLRIC(SNET) methodology discussed in this docket, the Department is of the opinion that the approach is consistent with prior Department Decisions and will permit SNET and the Department to satisfactorily determine the total long-run incremental cost of each service under review. The Department acknowledges the inherent limitations of the methodology to provide it the market perspective envisioned by proponents of TSLRIC(MCI); the Department, however, deems TSLRIC(SNET) sufficient for the Department to perform its statutory

responsibilities in this area. In so doing, the Department submits that it has been presented with cost methodologies that, as participants acknowledged, are all imperfect analytical tools and, therefore, a significant degree of Departmental discretion will be required as a consequence. The Department's experience with conventional LRIC methods provides this Department with a level of confidence that can only be equaled by adopting the methodology proposed by SNET in this proceeding.

The Department, therefore, finds that SNET's current methods of performing cost of service analysis for this Department, as ordered in Docket No. 88-03-31 and revised in Docket No. 89-12-05 continue to be appropriate for use in the future until notified otherwise by this Department. The Department has concluded that no changes to the mechanics of such cost studies are required to ensure compliance with any provision of Public Act 94-83. However, the Department strongly urges SNET to move its cost methodologies in the direction that treats all costs as uniformly variable as suggested by participants in this proceeding. The Department is sensitive to the fact that modification to any methodology must be done cautiously and carefully and acknowledges the progress made by SNET since the Decision in Docket No. 88-03-31 was issued. The Department, however, hereby places SNET on notice that in the future it must be prepared to efficiently conduct cost studies on any service or service elements that are deemed necessary by this Department for competitive access to, and/or use of, SNET's infrastructure. Any failure by SNET to meet the prescribed requirements to perform such analysis and render satisfactory results could be construed as an intentional effort to impede the implementation of Public Act 94-83 and would not be considered lightly by this Department.

New approaches to costing have been proposed in this proceeding and the Department urges participants to continue to present it with improved techniques or methods that might be considered for adoption in the future. The Department is especially appreciative of the offer by the OCC to sponsor its own forward-looking and embedded cost studies using a Local Exchange Cost Optimization Model (LECOM) recently developed in conjunction with the National Regulatory Research Institute. Gabel Testimony, p. 4. LECOM offers the Department the opportunity to examine stand alone costs, TSLRIC and LRIC views. Gabel Testimony, p. 7. The Department welcomes the filing of this study; however, the Department requires more than the presentation of economic theory to change its authorized procedures or methods. Specifically, OCC must demonstrate to this Department the relative merits of any change and how improved procedures or methods can improve the confidence and quality of this Department's actions in a competitive marketplace.

In spite of the Department's endorsement of the TSLRIC(SNET) methodology in this proceeding, any interested participant will be permitted the discretionary authority to develop and introduce its own cost analysis during the Department's examination of the unbundling requirements. While the Department's reaffirmation of its existing approach to this issue affords it an essential base for historical comparison, it welcomes the alternative perspective afforded by the methodologies introduced in this proceeding and encourages such submissions. The Department will ensure that each party has access to SNET's unbundling data in sufficient time to permit it full and fair examination for

those proceedings. Similarly, in the future, the Department will make every effort to ensure that parties wishing to develop and present alternative cost analysis obtain access to the data necessary to conduct such an analysis. If data is not readily available and requires SNET to conduct special studies, however, this decision should not be interpreted to mean that the Department will direct SNET to bear the burden of the studies.

Finally, AT&T requests that the Department order SNET to participate in a discussion to develop precise costing guidelines to be used in conducting TSLRIC studies. AT&T Testimony, p. 7; AT&T Brief, pp. 12 and 13. Acceptance of AT&T's proposal would add time and expense to the implementation schedule, producing little of meaningful value to the process, and would result in a diversion of resources of all participants from the continuing unbundling process and other related proceedings when the Department has already acknowledged the two study methods. Tr. 1/31/95, p. 99. Accordingly, AT&T's request is denied.

4. Pricing Principles

On a theoretical level, the purpose of ascertaining the costs of any telecommunications service is to establish the foundation for determining economically efficient prices. The price for a telecommunications service cannot be set precisely equal to any defined long run incremental cost if SNET is to recover all of the investment cost and expense associated with satisfying the aggregate demand for the service. In establishing price, it is essential to provide some level of contribution above incremental costs to offset the joint and common costs of provisioning the network. In the opinion of this Department and the regulatory community as a whole, this is only fair and equitable.

A principal concern before this Department throughout this proceeding has been how much of the cost associated with SNET's local loop will be assigned to services other than local exchange service. Participants in this proceeding have repeatedly stated their conviction that telecommunications plant is designed with a common architecture designed to efficiently support a wide range of services and demand levels. One component of that integrated architecture is the local "loop." The loop affords a customer access to the public switched telephone network of SNET, the long-distance services offered by the IXCs, the cellular, radio and paging services of third-party providers as well as a variety of on-line subscription services. The loop is generally defined as the physical facilities between the customer premises and a telephone company's central office. Virtually all of telecommunications and telecommunications-related services employ some use of the local loop that connects the customer to the first point of switching in the SNET network.

Despite the agreement among the participants in this proceeding of how the local loop is used, there is no agreement of how its costs should be ascribed to the respective participants. This is clearly evident in MCI's testimony, where it claims that the physical plant facilities used to provide the "loop" should not be treated as a cost common to many services, but rather as a SNET service offering. According to MCI, if

any portion of the associated cost of the loop are assigned to services other than simply local service it could deter entry by other providers of local loops as the cost of SNET's basic exchange service will not reflect the full cost of the loop. MCI proposes that the loop be viewed as a separate and distinct function for costing purposes and proposes a universal service fund if the current pricing of local loop would result in service rates that violate the Department's universal service goals. Geisy Testimony, pp. 8-10. To the contrary, SNET states that the total cost of a loop is included in the incremental cost studies for local exchange service. Tr. 01/31/95, p. 81.

In the Department's view, the inclusion of loop costs with local exchange service fails to adequately recognize the cost responsibility of other services that use the loop. The present system of loops has been engineered for the utilization of many services which include inter/intrastate toll and private line services as well as local exchange service. Currently, approximately 25% of SNET's total loop costs are assigned to the interstate jurisdiction pursuant to Part 36 of the FCC rules (47 CFR 36), leaving approximately 75% of the costs for which the Department has responsibility to determine the most appropriate means of recovery. Decision, Docket No. 88-03-31, August 8, 1990, p. 9. The Department has previously found that loop costs should be recovered from all users of the loop. Id. However, the purpose of this proceeding is not to unbundle local exchange service, but to determine the appropriate cost methodology for developing loop costs. The Department, therefore, will defer its decision on the process for determining the pricing of a local loop until all of the unbundling issues are addressed in Docket No. 94-10-02.

5. Depreciation

NECTA proposes that the Department reject SNET's treatment of depreciation charges in its proposed cost methodology as incomplete. NECTA Brief, p.5. NECTA believes that this can be done because cost attributions based on relative use, rather than on intended purpose, overstate real costs in the monopoly category while understanding those costs that are incurred in pursuit of competitive initiatives. Selwyn Testimony, p. 6. While this argument may have some theoretical merit, this proceeding is not the proper forum for its adjudication. The Department early in its implementation proceedings outlined the need for a review of SNET's depreciation practices and so designated Docket No. 94-10-03 as the appropriate procedural means of examining those issues. The Department, therefore, directs participants concerned about SNET's depreciation rates, and the elements that cause those rates, to address those issues in the context of that proceeding.

6. Video Dial Tone Consideration

OCC and NECTA question how SNET will allocate the costs of the hybrid fiber coaxial (HFC) infrastructure that will be utilized to provide telephony and broadband services, including video dialtone (VDT). NECTA recommends the Department work with the FCC to review the Company's video dialtone and broadband plans jointly since telephony and "common" plant investment necessary for VDT are assigned to federal/state jurisdictions according to standard separations rules. NECTA Comments,